

Table 15: Detailed Costs for Alternative 4

Channel Costs

Segment	Length (ft)	Sideslopes	Slope (ft/ft)	Top Width (ft)	Bottom Width (ft)	Design Depth (ft)	Q (cfs)	Velocity (fps)	Freeboard (ft)	ROW Width (ft)	Channel Excavated Volume (cy)	Channel Excavation Unit Cost (\$/cy)	Maintenance Road (sy)	Maintenance Road Unit Cost (\$/sy)	Landscape Unit Cost (\$/sf)	Landscape Cost	Land Acquisition (acre)	Land Acquisition Cost (\$/acre)	Total Channel Costs
Reservation Channel (Dobbins to Laveen Conveyance Channel)	3530	5:1	0.0058	45	5	4	197	8.79	2.3	90	2724	\$6.00	9413	\$7.40	\$1.50	\$476,550	7.3	\$27,000	\$759,475
Reservation Channel (Elliot to Dobbins)	6775	5:1	0.0010	45	5	4	65	3.44	2.5	90	5228	\$6.00	18067	\$7.40	\$1.50	\$914,625	14.0	\$27,000	\$1,457,632
67th Ave (Southern Ave to South Mountain Ave)	7060	5:1	0.0015	60	10	5	205	2.54	1.9	105	13347	\$6.00	18827	\$7.40	\$1.50	\$1,111,950	17.0	\$27,000	\$1,790,835
Freeway Channel (Dobbins to L.A.C.C.)	4320	5:1	0.0015	36	4	4	188	5.54	1.5	80	2694	\$6.00	11520	\$7.40	\$1.50	\$518,400	7.9	\$27,000	\$834,026
Freeway Channel (Elliot to Dobbins)	5365	5:1	0.0010	36	4	4	116	4.21	1.8	80	3345	\$6.00	14307	\$7.40	\$1.50	\$643,800	9.9	\$27,000	\$1,035,775
Western Canal Channel (West)	1805	5:1	0.0020	80	10	7	400	3.36	3.0	125	4777	\$6.00	4813	\$7.40	\$1.50	\$338,438	5.2	\$27,000	\$542,571
Western Canal Channel (East)	2825	5:1	0.0020	80	10	7	800	4.01	1.6	125	7477	\$6.00	7533	\$7.40	\$1.50	\$529,688	8.1	\$27,000	\$849,176
NOTE: Includes channel top width, 24ft maintenance road, and embankment transition.													NOTE: Cost based on trail surfacing.			NOTE: Does not include site amenities or signage.			\$7,269,490

Culvert Costs

ID: Location, Crossing	Number of Crossings	Design Q (cfs)	Length (ft)	Slope	Material / Type	Number of Barrels	Diameter/Height	Width	Unit Cost	Pipe/Box Culvert Cost	Inlet Headwall Unit Cost	Outlet Headwall Unit Cost	Total Culvert Costs
Reservation Channel (Dobbins to Laveen Conveyance Channel)	1	197	110	0.0050	CBC	2	4	6	\$700.00	\$77,000.00	\$8,125	\$12,500	\$97,625
Reservation Channel (Elliot to Dobbins)	1	65	110	0.0050	CBC	1	4	6	\$350.00	\$38,500.00	\$6,500	\$10,000	\$55,000
67th Ave (Southern to South Mountain Avenue)	3	205	110	0.0050	CBC	2	4	6	\$700.00	\$231,000.00	\$8,125	\$12,500	\$292,875
Freeway Channel (Dobbins @ 59th)	3	188	110	0.0050	CBC	2	4	6	\$700.00	\$231,000.00	\$8,125	\$12,500	\$292,875
Freeway Channel (Elliot @ 59th)	3	116	110	0.0050	CBC	2	4	6	\$700.00	\$231,000.00	\$8,125	\$12,500	\$292,875
Western Canal Channel (West)	2	400	110	0.0050	CBC	3	5	6	\$1,175.00	\$258,500.00	\$10,100	\$15,600	\$309,900
Western Canal Channel (East)	2	800	110	0.0050	CBC	3	6	8	\$1,530.00	\$336,600.00	\$10,100	\$15,600	\$388,000
													\$1,729,150

Storm Drain Costs

Segment	Diameter (in)	Material	Length (ft)	Unit Cost (\$/ft)	Total Storm Drain Costs
Baseline	48	RGRCP	2750	\$150.00	\$412,500
51st Ave. (South Mt. to Baseline)	84	RGRCP	2096	\$250.00	\$524,000
51st Ave. (Dobbins to South Mt. Avenue)	60	RGRCP	2937	\$160.00	\$469,920
Dobbins Rd. (47th to 51st)	36	RGRCP	2597	\$105.00	\$272,685
Dobbins Rd. (43rd to 47th)	36	RGRCP	3082	\$105.00	\$323,610
					\$2,002,715

Detention Basins Costs

Location	Storage Volume (Acre-ft)	Depth (ft)	Top Area (acre)	Bottom Area (acre)	Excavated Volume (cy)	Excavation Unit Cost (\$/cy)	ROW Width (ft)	Landscape Unit Cost (\$/sf)	Landscape Cost	Land Acquisition (acre)	Land Acquisition Cost (\$/acre)	Total Cost
51st Ave & Baseline	33	8	10	3.4	60500	\$6.00	NOTE	1	\$551,760	13	\$27,000	\$1,265,760
43rd Ave & Dobbins	65	10	10	3.1	10200	\$6.00	"	1	\$551,760	13	\$27,000	\$963,960
51st Ave & Dobbins	18	5	10	4.0	31300	\$6.00	"	1	\$551,760	13	\$27,000	\$1,090,560
47th Ave & Elliot	27	6	10	3.8	46200	\$6.00	"	1	\$551,760	13	\$27,000	\$1,179,960
44th Ave & Carver	100	10	20	-	181500	\$6.00	"	1	\$1,035,408	24	\$27,000	\$2,772,408
NOTE: Assume 44ft wide all around basin to accommodate 24ft maintenance road and embankment transition.												\$7,272,648

Total Costs

Flood Control Feature	30% Cost Contingency	Total Cost
Channel Costs	\$2,180,847	\$9,450,337
Culvert Costs	\$518,745	\$2,247,895
Storm Drain Costs	\$600,815	\$2,603,530
Basin Costs	\$2,181,794	\$9,454,442
		\$23,756,204